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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,335	10/13/2000	John T. Flynn JR.	SJ09-2000-0174US1	9824

22865 7590 07/07/2003

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EXAMINER

BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
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2184

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,335

Applicant(s)

FLYNN ET AL.

Examiner

Tim Bonura

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 23, 24, 26, 27, 29, 31, 32, 34, 35 and 37 is/are rejected.
- 7) ☒ Claim(s) 5, 7-22, 25, 28, 30, 33, 36 and 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 3. 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 1, 2 are objected to because of the following informalities: Regarding claim 1, Lines 3, after the word "comprising" a ":" should be present. Appropriate correction is required.
2. Regarding claim 2, Line 1, the dependency of the claim should not read "2". The examiner, for purposes of examination, has concluded that claim 2 is dependant upon claim 1.
3. Regarding claim 35, Line 1, the dependency of the claim should not read "346". There is no claim 346. The examiner, for purposes of examination, has concluded that claim 35 is dependant upon claim 34.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Marks, et al, U.S. Patent Number 5,790,775. Regarding claim 1:
 - a. Regarding the limitation of mapping open options of the operating system to SCSI persistent reserve commands to allow all of the multiple paths to register with the logical unit number of the shared storage system: Marks discloses a system with a shared storage system controlled by a SCSI controller over a SCSI bus (Lines 6-8 of Column 5).

- b. Regarding the limitation of allowing the second of the multiple paths to access the logical unit number of the shared storage system after obtaining a persistent reservation with the shared storage system, Marks discloses a system wherein one of the SCSI controllers, in the event of a failure by another SCSI controller, will assume control of the SCSI ID of the failed controller. (Lines 20-25 of Column 3).
6. Regarding claim 2, regarding the limitation of mapping open options, Marks discloses that the fault tolerant system is an “open system”. (Lines 1-3 of Column 3). Regarding the limitation of registering all paths from a first host with the LUN of the storage system, Marks also discloses that the each controller is configured to service zero or more SCSI IDs, wherein a controller to access one of the associated units uses the ID. (Lines 12-19 of Column 3).
7. Claims 23, 24, 26-27, 29, 31, 32, 34-35, and 37 are rejected under 35 U.S.C. 102(a) as being anticipated by IBM’s SCSI Command Reference manual (hereby referred to as ISCRM).
8. Regarding claim 23, the ISCRM discloses a system with reservation keys to identify registered host (Lines 1-4 of Page 22), and processing persistent reservation commands to control access by a host. (Lines 1-6 of Page 23).
9. Regarding claim 24, ISCRM disclose that persistent reserve out and in commands provide the basic mechanism for dynamic contention resolution in multiple initiator systems using multiple port targets. (3rd-6th Lines of 2nd Paragraph on Page 23).
10. Regarding claim 26, the ISCRM (provided in the applicant’s IDS) contains a list of features that are built into SCSI devices. ISCRM discloses a system with means of gathering information about a persistent reservation and reservation keys for a LUN (Bottom half of page 23).

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11. Regarding claim 27, the ISCRM discloses a system wherein a reservation in command is used to reserve a LUN. (Page 23, Middle of page, Paragraph starting with “To reserve a LUN...”).
12. Regarding claim 29, ISCRM discloses a system with a persistent reserve out command for LUN on a shared storage system. (Middle of page 23, Paragraph starting with “Since persistent reservation...”).
13. Regarding claim 31, the ISCRM discloses a system with reservation keys to identify registered host (Lines 1-4 of Page 22), and processing persistent reservation commands to control access by a host. (Lines 1-6 of Page 23).
14. Regarding claim 32, ISCRM disclose that persistent reserve out and in commands provide the basic mechanism for dynamic contention resolution in multiple initiator systems using multiple port targets. (3rd-6th Lines of 2nd Paragraph on Page 23).
15. Regarding claim 34, the ISCRM (provided in the applicant’s IDS) contains a list of features that are built into SCSI devices. ISCRM discloses a system with means of gathering information about a persistent reservation and reservation keys for a LUN (Bottom half of page 23).
16. Regarding claim 35, the ISCRM discloses a system wherein a reservation in command is used to reserve a LUN. (Page 23, Middle of page, Paragraph starting with “To reserve a LUN...”).
17. Regarding claim 37, ISCRM discloses a system with a persistent reserve out command for LUN on a shared storage system. (Middle of page 23, Paragraph starting with “Since persistent reservation...”).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marks as applied to claim 1 above, and further in view of IBM's SCSI Command Reference manual (hereby referred to as ISCRM).

20. Regarding claim 3, Marks discloses a system with multiple SCSI controllers and a method for backing up one of the SCSI controllers with the other controller. Marks does not obtain information about persistent reservations and reservation keys. The ISCRM (provided in the applicant's IDS) contains a list of features that are built into SCSI devices. ISCRM discloses a system with means of gathering information about a persistent reservation and reservation keys for a LUN (Bottom half of page 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the information gathering of the ISCRM with the SCSI fail over of Marks. The ISCRM contains information that is standard in SCSI systems; thereby it would have been included within the SCSI system of Marks.

21. Regarding claim 4, the ISCRM discloses a system wherein a reservation in command is used to reserve a LUN. (Page 23, Middle of page, Paragraph starting with "To reserve a LUN...").

22. Regarding claim 6, Marks discloses a system with multiple SCSI controllers and a method for backing up one of the SCSI controllers with the other controller. Marks does not

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obtaining information about persistent reservations and reservation keys. ISCRM discloses a system with a persistent reserve out command for LUN on a shared storage system. (Middle of page 23, Paragraph starting with "Since persistent reservation..."). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the information gathering of the ISCRM with the SCSI fail over of Marks. The ISCRM contains information that is standard in SCSI systems; thereby it would have been included within the SCSI system of Marks.

Allowable Subject Matter

23. Claims 5, 7-22, 25, 28, 30, 33, 36 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**. The examiner can normally be reached on **Mon-Fri: 7:30-5:00, every other Friday off**. The examiner can be reached at: **703-305-7762**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Rob Beausoliel** can be reached on **703-305-9713**. The fax phone numbers for the organization where this application or proceeding is assigned are:

703-746-7239 for regular communications

703-746-7240 for After Final communications


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.

Responses should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231


NADEEM IQBAL
PRIMARY EXAMINER

Tim Bonura
Examiner
Art Unit 2184

tmb
June 26, 2003